

DETERMINANTS OF FINANCIAL LITERACY AMONG MICRO ENTREPRENEURS IN SANA'A, YEMEN

HAMDINO HAMDAN

International Islamic University Malaysia, P.O. Box 10, 50728 Kuala Lumpur, Malaysia
hamdino@iiium.edu.my

ZAYED ABDULKHALEQ MOHAMMED

International Islamic University Malaysia, P.O. Box 10, 50728 Kuala Lumpur, Malaysia
azayed281289@gmail.com

ABSTRACT

The aim of this study is to examine the level of financial literacy among micro entrepreneurs in Sana'a, Yemen and the effect of financial knowledge, behaviour, attitude, and skills on financial literacy among micro entrepreneurs in Sana'a, Yemen. According to previous studies the financial literacy in Yemen is low in general. A quantitative research model has been implemented in this study via a survey to collect primary data from 220 micro entrepreneurs and analyse it with the SPSS program. Four approaches have been used to analyse the data, which are descriptive analysis, normality tests, ANOVA, and multiple linear regression analysis. The findings of this research shows that 43.76 percent of the average micro entrepreneurs are able to understand different financial concepts and have the capability to calculate simple financial equations in terms of inflation, time value of money, simple interest, and compounded interest. Besides that, the average of micro entrepreneurs who are familiar with different financial products is 43.55 percent. The ANOVA test shows that there is a difference among the variables of financial knowledge, behaviour, attitude, and skills on financial literacy among micro entrepreneurs in Sana'a, Yemen. The correlation analysis shows that the variables are significant at 0.01 and the relationship among variables is positively high. Additionally, the multiple regression analysis shows that financial behaviour, financial attitude, and financial skills are positively affecting the financial literacy among the micro entrepreneurs. This study also recommends some possible ways to enhance, improve, and increase the awareness, the importance, and the need for financial literacy among micro entrepreneurs in Sana'a, Yemen.

Keywords: *Financial literacy, financial Attitude, financial knowledge, financial behaviour, micro entrepreneurs.*

INTRODUCTION

Financial literacy is important for people because it aids them in making decisions related to one's own financial management. People who are financially literate make informed financial choices with regards to their investments, savings, banking, and borrowing and are less vulnerable to financial fraud. The importance of financial knowledge has increased further because of the increasing complexity of financial products that are easily available to large populations such as through online banking, e-wallets etc. Governments across the world are pushing for financial inclusion to provide more access to financial services, enabling people to have bank accounts and access credit products. Moreover, the changes in financial products

has transferred the financial decision-making responsibility to participants who earlier relied on their employers or governments for their financial security (Klapper, Lusardi and Oudheusden, 2015). Furthermore, ignorance of financial illiteracy carries risks and costs for people because they end up in bigger debt, paying more interest, taking high interest credit, borrowing more, and saving less ultimately resulting in financial difficulties (Lusardi and Tufano, 2015).

Financial literacy is key to financial inclusion and is considered to be the first step towards achieving financial inclusion (Shusha, 2017). It is vital for people to understand the basics of managing money for empowering themselves financially and enhancing their well-being (Arofah, Purwaningsih, and Indriayu, 2018) Governments are pushing for financial inclusion because many studies, such as of Chibba (2009) and Hussaini and Chibuso (2018) have found that financial inclusion offers complementary and incremental solutions to reducing poverty and achieving the Millennium Development Goals.

According to a global financial literacy survey carried out by Standard & Poor's Ratings Services in 2015, it was found that the financial literacy level in the Yemen Republic was only 13 percent of the adult population. It ranked lowest in rankings of 140 countries around the world (Klapper, Lusardi and Oudheusden, 2015). The low financial literacy levels in Yemen might have been further impacted by the ongoing conflict; 40 percent of the households in Yemen have lost their primary source of income, and are finding it difficult to fulfil their basic needs, poverty has worsened. Before the crisis, 50 percent of people were affected. However at present, 71 to 78 percent of Yemenis are experiencing poverty (World Bank, 2019). For a modern society to function effectively, financial literacy is an important requirement because it can make a difference to an individual's quality of life by finding financing with low cost when they need and use their fund wisely, but also makes a difference to the quality and integrity of markets. It provides individuals with basic tools for acquiring the discipline of saving and budgeting whilst ensuring that they can enjoy a dignified life.

In developing countries, micro entrepreneurship plays a prominent role in the alleviation of poverty and generating income. Engstrom and McKelvie (2017) found that financial literacy is an important predictor of financial performance in micro enterprises. Financial literacy is important for individuals but more so for micro entrepreneurs because the stakes are higher and every decision they make affects all aspects of their business.

In Yemen, micro entrepreneurship plays an important role in the economy and it's mostly run by women who are provided credit through microfinance (Ahmad, 2012). It has great potential to reduce poverty and transform the economy of Yemen, ending political and social instability. However, micro entrepreneurs who obtain credit from microfinance institutions face a number of challenges in starting their business and running it, mainly because they lack financial management knowledge and have low financial literacy (GIZ, 2017). Financial literacy is of greater concern in developing countries than in developed nations because it is a pre-requisite to avoid financial crisis and gain financial stability (Gupta & Kaur, 2014).

However, studies conducted in other countries such as Fatoki (2017) in South Africa and Engstrom and McKelvie (2017) also found that financial literacy among micro entrepreneurs was low. A study conducted in Davao city by Sucuahi (2013) said that financial literacy levels were found to be moderate and the study also found that financial literacy was a determinant of profitability and financial performance. However, there is a lack of such studies in the context of Yemen that have investigated the financial literacy level among micro entrepreneurs and what the determinant factors of financial literacy are among micro entrepreneurs in Yemen. There is also limited research on the factors that determine financial literacy among micro entrepreneurs in Yemen. Therefore, to fill this gap, this paper investigates the current financial literacy level among micro entrepreneurs in Sana'a, Yemen. The various

aspects of financial literacy, what are the factors that affect levels of financial literacy among micro entrepreneurs in Yemen, and how it can be improved. The specific research's objectives are to investigate whether financial knowledge, financial behaviour, financial attitude, and financial skill factors affect financial literacy among micro entrepreneurs in Sana'a Yemen. For better understanding, the paper is divided into five chapters. The first chapter introduced the background of the study. The second chapter critically reviews the past literature on financial literacy and its determinants. The third chapter presents the research methodology. The fourth chapter presents the research findings and a discussion of the results.

LITERATURE REVIEW

Concept of Financial Literacy

Financial literacy refers to the ability to make informed judgments and to take effective decisions regarding the use and management of money (Hussaini and Chibuzo, 2018). For individuals, financial literacy focuses on their ability to manage their personal financial matters such as insurance, investments, real estate, savings, tax planning, retirement, and budgeting (Lusardi, Mitchell, and Curto, 2010). Remund (2010) reviewed the definition of financial literacy and various measurements used to define it. They divided the definitions of financial literacy into four categories after they reviewed past studies namely, knowledge of financial concepts, ability in managing personal finances, confidence in future financial planning and skill in making financial decisions. They concluded that financial literacy is defined variedly, and there is no standardised measure used to measure financial literacy. Some scholars such as Hilgert, Hogarth and Beverly (2003) defined financial literacy in terms of financial knowledge. Worthington (2004) defined it as a skill that is used to make financial decisions.

However, the operational definition used in this research is a combination of all the four categories that are used to define financial literacy such as of Remund (2010), who states that financial literacy "measures the degree to which one understands key financial concepts (knowledge) and possesses the ability and confidence to manage personal finances through appropriate, short-term decision making and sound long-range financial planning, while mindful of life events and changing economic conditions".

Measuring financial literacy is important because studies such as Carpena et al. (2011) have shown that financial behaviour is dependent on financial literacy. Furthermore, measuring financial literacy is important because it is an important element of financial and economic development and stability. Individuals with adequate financial literacy positively contribute to the effective functioning of the economy, financial system, and society in general stated (Engstrom, and McKelvie, 2017). According to Fatoki, (2017), financial literacy is measured in terms of financial knowledge which is not enough because financial literacy is more than knowledge; it is also about the application of the knowledge, skills, and behaviour. Therefore, financial literacy measurements should be comprehensive and measure all these factors. Shusha (2017) stated that financial literacy should be measured using separate scales for measuring the main determinants of financial literacy which should include financial abilities, financial knowledge, financial behaviour, financial communication, and financial confidence.

Financial Literacy Level in Yemen

Pearce (2010) from the World Bank conducted a study on financial inclusion in the MENA region. He stated that in the MENA region, financial inclusion is important for increasing the competitiveness of the region and also for raising the income levels, reducing poverty, and employment creation. It would also improve poor people's access to financial services. Many governments in the MENA region have taken steps to increase the financial inclusion of their

people. However, Pearce (2010) stated that there is lack of comprehensive commitment at a high level to financial inclusion in the region. Though financial inclusion has increased, it remains weak overall, mainly because of lack of financial literacy. In Yemen, only 13 percent of the adult population is financially literate and only 1.4 percent of people have access to bank deposits which is much less when compared to other countries such as 19.2 percent in Syria and in UAE, Oman, Lebanon, and Iran people have more than one account. However, like other countries, financial literacy in Yemen is also increasing and is being given high priority as part of an effort to increase the financial inclusion of people.

The Union of Arab Banks (2017) report stated that financial literacy and financial inclusion are inexorably linked. Low levels of financial inclusion are often linked with lower financial literacy levels. In the Arab region, there is a consistently low level of financial inclusion which is also true for Yemen, furthermore in Yemen in addition to low financial literacy levels, there is a huge and persistent gender difference because women's financial literacy levels are lower than men's, similar to the rest of the Arab region with an average of 27.7 percent for women compared to 33.5 percent for men. The gender gap in Yemen is 9.7 percent. Financial inclusion in Yemen is the lowest with 6 percent and only 3.7 percent of women had accounts in 2011 which increased to 6.4 percent in 2014. Young people in Yemen, under the 18 years of age, cannot open or manage bank accounts due to lack of financial literacy, which explains the low financial inclusion. Account ownership in Yemen is higher among the rich, which is 5.1 percent whereas only 1.2 percent ownership among the poor. During the year 2014, only 0.4 percent of people borrowed money from a financial institution and it was mostly rich people which is also the lowest in the Arab region and more than women: men borrow money from others. About 15 percent of people in Yemen borrow money from private, informal lenders, and 51.7 percent from family or friends, as compared to 0.4 percent from banks. In Yemen, financial literacy levels among the age group of 15-34-year old is 16 percent while 35-54-year old is at 10 percent while 9 percent among people more than 55 years of age. It shows that Yemen has the lowest level of financial literacy in the whole of the Arab region, however the government and various organisations are striving to increase financial literacy in order to increase financial inclusion. For example, in Yemen, Injas Al-Arab is a non-profit organisation that is working to provide financial education to youths. However, considering the ongoing conflict, there is a long road ahead.

In Attia and Engelhardt (2016) stocktaking report on financial education initiatives in the Arab region, they found that with regards to Yemen, which has a low financial literacy level, there is no nationwide program to measure or improve financial literacy levels. Considering the political and economic conditions prevailing in the country, there is no official policy or documentation that has been developed to implement any financial education initiatives or activities and any other initiatives have been put on hold. Although the Yemen Microfinance Network, which has partnerships with more than 20 institutions, is planning to set up activities developed with GIS to promote financial literacy in the country. Other initiatives include: Aflatoun to promote financial literacy among youth, business management training to develop business, and financial skills among young educated people and women; and the Khadija Initiative and Vocational literacy programme to improve financial literacy among women and young people. Al-Amal Bank has also launched several initiatives and programmes to improve financial literacy among children and young people in Yemen. The survey showed that, in Yemen financial literacy and inclusion is low and the problem is further aggravated by the conflict, however there are a few organisations that are working to improve financial literacy in the war-torn country, yet there is a lack of a comprehensive national policy aimed towards improving financial literacy in the country.

Determinants of Financial Literacy

Fatoki (2017) have suggested that the significant variable that impacts financial literacy levels among adults are gender, marital status, age, education level, country of birth, their employment and income. Thus, differences in demographic characteristics determine the financial literacy level of an individual. Other factors like financial knowledge, financial attitudes, financial skill, and financial knowledge also impacts literacy levels among individuals (Natoli, 2018). Lusardi and Tufano (2015) study also found that the socio-demographic characteristic of a person are strongly related to financial literacy.

Rai, Dua, and Yadav (2019) studied the possible association of financial behaviour, financial attitude, and financial knowledge with financial literacy. The study found that financial behaviour, financial knowledge, and financial attitude have a strong association with financial literacy among working women.

Financial Knowledge

In this study, the dependent variable of financial literacy is based on the individual's financial knowledge of broad concepts and terms within finance. The various definitions put forward by different authors is typically associated with an individual's level of financial knowledge. Engstrom and McKelvie (2017) stated that a person's greater financial knowledge leads to better financial decision making and appreciation of financial difficulties encountered at present or in the future. Lusardi and Tufano (2015) study also showed a greater relationship between financial knowledge and financial literacy.

This indicates that knowledge of financial terms and concepts is fundamental and form the building blocks to sound financial decision making. Therefore, the higher the financial knowledge, the higher the literacy levels among individuals. Natoli (2018) study also indicated that there is a key association between financial literacy and an individual's financial knowledge and attitude.

Financial knowledge can be measured in terms of knowledge of the concept of interest rates. An individual's capacity to understand simple calculations with regards to simple and compounded interest determines their financial literacy level. Shusha (2017) used interest rate calculations to determine the financial knowledge of a person; three simple interest calculation questions were used in their survey. A person who can answer two or three questions is said to have good financial knowledge whereas respondents who answered less than two questions correctly were termed as having little financial knowledge. Klapper, Lusardi and Oudheusden (2015) study that measured financial literacy around the world used knowledge in interest compounding, basic numeracy, inflation and risk diversification to measure financial literacy.

H1: There is a positive affect between financial knowledge and financial literacy among micro entrepreneurs in Sana'a, Yemen.

Financial Behavior

Shusha (2016) defined financial behaviour as "the capability to capture understanding of the overall impact of financial decisions on one's circumstances and to make the right decisions related to the cash management, precautions, and opportunities for budget planning". Financial behaviour helps individuals to achieve their expected financial goals and improve financial management responsibility of an individual and enable them to avoid any financial crisis (Arofah, Purwaningsih, and Indriayu, 2018). Finke, Howe and Huston (2017) stressed that financial behaviour reflects how an individual's behaviour is relevant to their financial management. He also argued that the financial behaviour, financial attitude, and financial capability of a person results in financial satisfaction.

Shusha (2017) asserted that the financial literacy of an individual can be predicted through their demographic and socioeconomic variables, and financial literacy levels are indicated by the financial knowledge that a person has, their financial attitude, and financial behaviour. Rai, Dua, and Yadav, (2019) study also indicated that financial behaviour is a key predictor of financial literacy; positive financial behaviour such as planning expenses and building financial security drives financial literacy, however negative behaviours like excessive use of credit reduce the financial well-being of an individual. Positive financial behaviour indicates high levels of financial literacy whereas negative behaviours indicate low levels of financial literacy. Furthermore, individuals with high levels of financial literacy show less risky financial behaviours.

Good financial behaviour relates to debt management, budgeting, record keeping, savings, tax planning, and retirement planning which indicates financial literacy and results in profitability of micro enterprises Engstrom and McKelvie (2017). Grohmann (2017) studied the relationship between financial literacy and financial behavior, focussing on middle class people living in Bangkok. He found that financial literacy in Bangkok is similar to that of industrialised countries, however knowledge of advanced financial concepts was lower. The main findings of the study were that people with good financial literacy showed financial behaviour such as having savings accounts and good financial decision making.

Arofah, Purwaningsih, and Indriayu (2018) study focussed on how financial literacy of individuals can be improved by focussing on improving financial behaviour using financial educational programmes. The study found that financial literacy of an individual influences his financial behaviour. A person with high or good financial literacy shows positive financial behaviour such as avoiding financial crisis and risks. Finke, Howe and Huston (2017) also examined financial literacy and financial behaviour among 4500 young adults belonging to the age group of 25 to 34 years. The study found that financial literacy among minorities, women, less educated, and lower income young adults was lower, however attainment of higher level of education is not a guarantee of financial literacy. Financial literacy was measured using three subsets of day to day and long-term financial behaviour which included high-cost methods of borrowing, planning for retirement, and holding a buffer stock of savings. The study showed that financial literacy is an important predictor of financial behaviour as high or good financial literacy increased the likelihood of young adults to start planning for their retirement, keep precautionary savings, and decrease their risky behaviour such as using high interest borrowing. Thus, it can be said that positive financial behaviour indicates high financial literacy levels, whereas risky financial behaviour shows low levels of financial literacy.

H2: there is a positive affect between financial behaviour and financial literacy among micro entrepreneurs in Sana'a, Yemen.

Financial Attitude

Financial attitude is defined as "the state of mind, opinion, and judgment of a person about finances" Zuhair, Wickremasinghe, and Natoli (2015). It refers to an individual's personal disposition toward financial matters (Ibrahim and Alqaydi, 2013). The other key component that determines financial literacy is the financial attitude of an individual Grohmann (2017). The key financial attitude of an individual that determines their financial literacy level is their savings habit and their ability to handle stress associated with handling money Natoli (2015). An individual's financial attitude towards risk tolerance is another predictor of financial literacy Shusha (2016). Rai Dua and Yadav (2019) study showed that financial attitude has a significant effect on financial literacy; it means that people with a good financial attitude have good financial literacy and people with a lack of financial attitude have low financial literacy.

Different studies have revealed mixed results on the impact of financial attitude on financial behaviour. Zuhair, Wickremasinghe and Natoli (2015) study showed a positive relationship between financial management behaviour and financial attitude. However, Novita and Maharani (2016) study found that financial attitude has no impact upon financial management behaviour.

Ibrahim and Alquadi (2013) examined financial literacy among residents of the United Arab Emirates. The study focused on identifying the determinants of financial literacy among adults covering a sample of 412 individuals. The study found that financial literacy among adults in the UAE is 43.3 percent, which is below the average level of 50 percent indicated in literature. There was also no significant difference between financial literacy of men and women. Further, personal finance attitude also influences their financial decision making, as people with strong financial attitude borrow less from credit cards. They measured financial attitude by measuring people's attitude towards maintaining adequate financial records, saving habits, maintaining adequate insurance coverage, spending less than their income, maintaining a diversified portfolio of investments, and avoiding borrowing to balance their personal budget.

H3: There is a positive affect between financial attitude and financial literacy among micro entrepreneurs in Sana'a, Yemen.

Financial Skill

Finke, Howe and Huston (2017) defined financial literacy in terms of financial knowledge and financial skills. The definition is "financial literacy is the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being". Engstrom and McKelvie (2017) also defined financial literacy in terms of financial knowledge and skills. Therefore, financial literacy is not only about having knowledge of financial concepts but also having the skills and ability to apply that knowledge in making sound financial decisions and developing techniques to effectively manage financial resources (Lusardi and Mitchell, 2011). Gupta and Kaur (2014) also regards financial literacy as the combination of financial knowledge, financial awareness, financial skill, attitude, and behaviour which are all needed by an individual to make financial decisions and achieve financial well-being.

Redmund (2010) has studied financial literacy since 2000 and has found that financial literacy is focused on five domains which include financial concept knowledge, the ability to understand and communicate about financial concepts, financial attitude, and aptitude in managing personal finances, financial skills used to make appropriate financial decisions and an individual's confidence in effective financial planning for future needs. Thus, the concept of financial literacy extends to individuals acquiring a set of skills in different domains such use of statistical literacy, computer literacy, and health literacy according to Arofah, Purwaningsih and Indriayu (2018). Redmund (2010) research indicated that most research is focused on different dimensions of financial literacy such as financial knowledge, financial skills, and financial attitude.

Financial educational programmes aimed at enhancing financial literacy not only make individuals understand different financial concepts and instruments, but also empowers them by enhancing their financial skills regarding the use of financial products and managing risk Gupta and Kaur (2014). This indicates that financial skills enhance financial literacy levels in individuals.

Barte (2012) studies financial literacy among micro entrepreneurs in Cebu Fish Vendors in the Philippines. He measured financial literacy by measuring the financial skills of fish vendors. The study covered 123 fish vendors in Cebu, Philippines. The study found that financial literacy among the fish vendors was low because they did not possess financial skills because they do not keep records of any transactions, do not calculate or monitor profit and

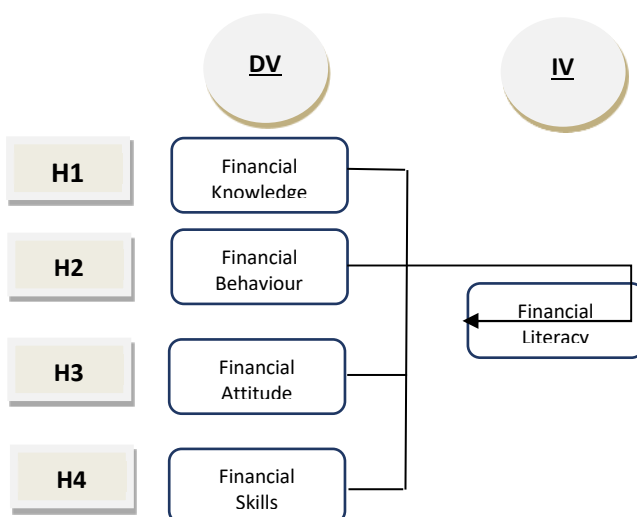
loss, and lack efficient cash management practices. Furthermore, they used high interest loans to fund their micro entrepreneurship.

Financial literacy among micro entrepreneurs is measured if micro entrepreneurs have record keeping skill, personal finance skill, budgeting and savings. Micro entrepreneurs need to have the financial skill of obtaining capital from outside sources with minimal payoff obligation and least interest rates. Acquiring these financial skills would help in micro entrepreneurs increasing the financial literacy level Sucuahi (2013). Financial skill along with financial knowledge is an important predictor or determinant of financial literacy among micro entrepreneurs.

H4: There is a positive affect between financial skills and financial literacy among micro entrepreneurs in Sana'a, Yemen.

Figure 1.1 is about the conceptual framework of the dependent and independent variables in this research. It shows financial literacy as a dependent variable for this research as well as showing the four independent variables which are financial knowledge, financial behaviour, financial attitude, and financial skill. According to Wagner (2019) regarding financial literacy regarded as the combination of financial knowledge, financial awareness, financial skill, attitude, and behaviour which are all needed by an individual to make financial decisions and achieve financial well-being. And other studies like Lusardi and Mitchell (2011) showed a great relationship between financial knowledge, financial literacy and attitude (Natoli, 2018). And another study like Atkinson and Messy (2012) indicated that a predictor key of the financial literacy is financial behavior. Also, according to Sucuahi (2013) the micro entrepreneurs would be helped to increase the level of financial literacy among them by the financial skills. We can indicate from the previous studies that the financial literacy level could be determined and measured by the levels of financial knowledge, financial behaviour, financial attitude, and financial skill among micro entrepreneurs.

Figure 1.1 Conceptual framework of dependent and independent variables



RESEARCH METHOD

The primary data for this study has been collected via a questionnaire and analysed using Statistical Program for Social Science (SPSS). A quantitative research model has been implemented in this research. The population sample in this research is micro entrepreneurs in

the capital of Yemen, Sana'a. However, the study population is unknown because no published reports or statistics study to count them and the country is in war for almost six years and no one will allow to give us the information and the researcher think that no statistics study to count has been done during the last ten years and most of them don't have permission to open their businesses, so the study has followed a non-random method.

In addition, convenience sampling is a type of non-random sampling methodology used in this study to collect the data from the intended sample. Convenience sampling occurs when the study population is accessible, available, and willing to contribute in the study Wagner (2019). Also, snowballing was used to make it easier to reach more respondents, by using suggestions from the respondents about their relatives and friends who work as micro entrepreneurs that fulfill the needs for answering the survey. The number 220 respondents is considered more than sufficient for this study. The research data have been analysed using different methods of statistical analysis, which are descriptive analysis, the normality and reality tests, one-way Anova, and multiple linear regression.

DATA ANALYSIS AND DISCUSSIONS

Based on Table 1, the majority of the respondent's ages were between 26 to 30 with 100 respondents which is equal to 45.45 percent followed by those aged between 20 to 25 which represents 40 percent of the total respondents. The other three categories comprised the lowest percentages as follows: 31 to 35 with 7.73 percent 36 to 40 with 5.45 percent and above 40 with 1.36 percent. As we can see, more than 85 percent of the micro entrepreneurs were still young. Men represented most of the respondents with a percentage of 93.6 percent of the 220 respondents, while the women represented 6.36 percent of the total respondents. This is because of cultural issues in Yemen; it is rare to find female micro entrepreneurs in markets.

Most of the respondents' monthly income was between 30,000 to 60,000 Yemeni Rial, with a percentage of 54.09 percent of the 220 respondents. Almost a third of the respondents' monthly income was less than 30,000, while a monthly income between 60,000 to 90,000 Yemeni Rial represents 10.91 percent of respondents. The monthly income for the remaining respondents was between 90,001 to 180,000 and 180,001 to 300,000 Yemeni Rial, at 4.55 percent and 3.18 percent respectively. This proves that most of the micro -entrepreneurs studied have low income levels and can inhibit the business development and financial literacy of the micro -entrepreneurs studied. Lack of income will limit the efforts of micro entrepreneurs to improve their financial literacy capabilities.

Most of the respondent were high school degree holders, representing 50.91 percent of the respondents, followed by 19.09 percent of the respondents who didn't graduate from high school. This indicates that most of the micro -entrepreneurs studied have low levels of education and knowledge that can affect the level of financial literacy of the micro -entrepreneurs concerned.

Table 1: Demographic Background

	Percentage of Total Respondents
Age	
20-25	40%
26-30	45.45 %
31-35	7.73 %
36-40	5.45 %
40 and above	1.36 %
Gender	
Male	93.64 %

Female	6.36 %
Marital status	
Single	25.91 %
Married	72.73 %
Divorced	0.45 %
Other	0.91 %
Monthly income	
Less than or YR 30K	27.27 %
YR +30K- YR 60K	54.09 %
YR + 61K - YR 90K	10.91 %
YR + 91 K - YR 180 K	4.55 %
YR + 181K - YR 300K	3.18 %
Greater than YR + 301K	0.00 %
For how long you work as micro entrepreneurs	
Less than 1 year	10.45 %
More than 1 year less than 3 years	21.36 %
More than 3 year less than 5 years	28.64 %
More than 5 years	39.55 %
Level of education	
School	19.09 %
High school	50.91 %
Diploma	17.27 %
Bachelor's degree	10.00 %
Master's degree	1.36 %
Doctoral Degree (PhD)	0.91 %

Based on Table 1, 39.55 percent of the respondents had worked as micro entrepreneurs for more than 5 years, and 28.64 percent had worked for more than 3 years but less than 5 years. 21.36 percent of the respondents had worked for more than 1 year but less than 3 years. The remaining 10.45 percent had worked as micro entrepreneurs for less than 1 year. This indicates that the majority of micro -entrepreneurs surveyed have relatively extensive business experience that will also influence their financial literacy capabilities.

Table 2: Correlation

		QFK	QFB	QFA	QFS	QFL
QFK	Pearson Correlation Sig. (2-tailed) N	1 220				
QFB	Pearson Correlation Sig. (2-tailed) N	.654** 0.000 220	1 220			
QFA	Pearson Correlation Sig. (2-tailed) N	.607** 0.000 220	.831** 0.000 220	1 220		
QFS	Pearson Correlation Sig. (2-tailed) N	.638** 0.000 220	.758** 0.000 220	.784** 0.000 220	1 220	
QFL	Pearson Correlation Sig. (2-tailed)	.549** 0.000	.723** 0.000	.745** 0.000	.810** 0.000	1

	N	220	220	220	220	220
--	---	-----	-----	-----	-----	-----

Note:

**. Correlation is significant at the 0.01 level (2-tailed).

QFK = Financial Knowledge, QFB = Financial Behaviour, QFA = Financial Attitudes, QFS = Financial Skills, QFL = Financial Literacy

Table 2 reveals that the data indicates that there is a significant correlation between the variables. Pearson correlation coefficient analysis performed to determine the direction of the relationship between the variables and the intensity of the relationship between the variables. Moreover, the correlation between financial literacy and financial knowledge is 0.549 which indicates a strong, positive relationship and has a significant level of 0.000 at $\alpha = 0.01$. Additionally, the correlation is positive and high between financial literacy and financial behaviour at 0.723 and a significant level of 0.000 at $\alpha = 0.01$. the correlation is positive and stronger between financial literacy and financial attitude at 0.745 and a significant level of 0.000 at $\alpha = 0.01$. There is the strongest positive correlation among independent variables and dependent variable is between financial literacy and financial skills at 0.810 and a significant level of 0.000 at $\alpha = 0.01$. Additionally, among the independent variables there are no multicollinearity problems. In addition, there are positive and strong relationships among the independent variables with significant correlations among them and a significant level of 0.000 at $\alpha = 0.01$. In other words, any increase in any of the independent variables will increase the other independent variables and the dependent variable.

Based on Table 3, there is a significant difference between different variables groups as the p-value is 0.000 which is less than 1 percent significant level.

Table 3: Anova Test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	56.886	4	14.221	122.121	.000 ^b
Residual	25.038	215	0.116		
Total	81.924	219			

Note:

a. Dependent Variable: QFL

b. Predictors: (Constant), QFS, QFK, QFB, QFA

Table 4: Multiple Linear Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.819	0.18		4.541	0
QFK	-0.018	0.036	-0.026	-0.505	0.614
QFB	0.139	0.066	0.157	2.121	0.035
QFA	0.173	0.066	0.197	2.626	0.009
QFS	0.542	0.065	0.554	8.403	0

Note: a. Dependent Variable: QFL

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.833a	0.694	0.689	0.34125

a. Predictors: (Constant), QFS, QFK, QFB, QFA

The researcher used multiple linear regression or multivariate regression to evaluate the relation between independent and dependent variables. Moreover, the significance of the relationship is determined by multiple linear regression. It thus gives us the ability to recognize the independent variable's impact on the dependent variable. Table 4 reveal that financial behaviour significant level (p-value) is 0.05, while financial attitude and financial skills significant level is less than 0.01 and financial knowledge is insignificant. Therefore, financial behaviour, financial attitude, and financial skills are positively affecting the financial literacy among micro entrepreneurs in Sana'a, Yemen. Moreover, financial knowledge significant level is more than 0.1. Therefore, financial knowledge has no effect on the financial literacy among micro entrepreneurs in Sana'a, Yemen. Hypothesis H2, H3 and H4 are accepted except the H1 because the result is insignificant.

The first hypothesis does not achieved and no statistical evidence to reject the null hypothesis because financial knowledge has no effect on financial literacy among micro entrepreneurs in Sana'a, Yemen. While the second, third, and fourth null hypothesis have statistical evidence to reject so the last three hypothesis achieved that means financial behavior, financial attitude, and financial skills affect the financial literacy among micro entrepreneurs in Sana'a, Yemen.

CONCLUSION

The results of the study show that financial behaviour, financial attitude and financial skills are the positive determinants affecting financial literacy among the micro entrepreneurs in Sana'a, Yemen. A correlation test has been done to check if there is any multicollinearity and there is no multicollinearity among variables. Next, the multiple linear regression test has been done and it shows that the financial behaviour, financial attitude, and financial skills affect the level of financial literacy among the micro entrepreneurs in Sana'a, Yemen. Unfortunately, financial knowledge does not affect the level of financial literacy among the micro entrepreneurs in Sana'a, Yemen.

The financial literacy level of micro entrepreneurs should be increased by themselves by participating in workshops and courses on financial literacy and by reading about finance to increase their financial literacy levels. Their lifestyle would be improved and enhanced by increasing their financial literacy. At the same time, financial literacy will teach them how to cope with their financial issues and how to fulfil their financial obligations on time and with the lowest cost. Financial literacy will give them a better chance to be successful in their business and give them the ability to manage it effectively and improve the business. In addition, to increase their source of income and adjust to this changing financial climate, they will learn more about savings and investments. Eventually, financial opportunities presented by this new financial era should be discovered and get more attention from micro entrepreneurs.

This study has some limitations which need to be considered. The sample size may be considered as a small sample. To come up with more comprehensive results, the population should be determined to know the right sample and to be able to do the parameters analysis with regression and ANOVA tests and other tests with the right sample size. Apart from that, the scope of the study also needs to be expanded to several other major cities in Yemen to further improve the accuracy and quality of the study results. Examples are the cities of Aden, Taizé, and Hadramawt. The next limitation is the small number of the study's independent variables. Therefore, the number of independent variables should be raised to increase the accuracy of the tests like bookkeeping, fund management, investment questions, etc.

References

Ahmad, S.Z., (2012), Microfinance for women micro and small-scale entrepreneurs in Yemen: Achievements and challenges. *International Journal of Entrepreneurship and Small Business*, 16 (1), p.102-120.

Attia, H., and Engelhardt, H. (2017). Financial Education Initiatives in the Arab Region. *Arab Monetary Fund*, Retrieved from https://www.amf.org.ae/sites/default/files/Studie_Arab.Region_190417_v5-FINAL.pdf.

Arofah, A.A., Purwaningsih, Y., and Indriayu, M., (2018), Financial Literacy, materialism and financial behavior. *International journal of Multicultural and Multireligious Understanding*, 5 (4), p. 370-378.

Barte, R., (2012), Financial Literacy in micro-enterprises : the case of Cebu fish vendors, Philippine. *Management Review*, Vol. 19.

Carpena, F., Cole, S. A., Shapiro, J., & Zia, B. (2011). Unpacking the causal chain of financial literacy. *World Bank Policy Research Working Paper Series*, 1.

Engstrom, P., and McKelvie, A., (2017), Financial literacy, role models and micro-enterprise performance in the informal economy. *International Small Business Journal*, 35 (7), p. 855-875.

Fatoki, O., (2017), The financial literacy of micro entrepreneurs in South Africa, *Journal of Social Sciences*, 40 (2), p. 151-158.

Finke, M., Howe, J. and Huston, S. (2017). Old age and the decline in financial literacy. *Management Science*, 63 (1), pp. 213-230.

Grohmann, A. (2017), Financial literacy and financial behavior: evidence from the emerging Asian middle class. *DIW Berlin Discussion Paper* No. 1702.

GIZ. (2017). Successful female entrepreneurs in Yemen, GIZ, Retrieved from <https://www.giz.de/en/mediacenter/43612.html>.

Gupta, K., and Kaur, J. (2014). A study of financial literacy among micro entrepreneurs in District Kangra. *International Journal of Research in Business Management*, 2 (2), p. 63-70.

Hilgert MA, Hogarth JM, Beverly SG. (2003). Household financial management: the connection between knowledge and behavior. *Fed. Reserve Bullet.* 89(7): 309-322.

Hussaini, U., and Chibuzo, I.C., (2018), The effects of financial inclusion on poverty reduction: The moderating effects of microfinance. *International Journal of Multidisciplinary research and development*, 5 (2), p. 188-198.

Ibrahim, M.E., and Alqaydi, F.R. (2013). Financial Literacy, personal financial attitude and forms of personal debt among residents of the UAE. *International Journal of Economics and Finance*, 5 (7), p. 126-138.

Klapper, L., Lusardi, A., and Oudheusden, P.V., (2015), Financial Literacy around the world: Insights from the standard & poor's ratings services global financial literacy survey. *The World Bank*.

Lusardi, A. and Tufano, P. (2015). Debt Literacy, Financial Experiences, and Over Indebtedness. *Journal of Pension Economics and Finance*, 14 (4), p. 332-328.

Lusardi, A. and Mitchell, O. (2011), Financial literacy around the world: An overview, NBER Working Paper No. 17107, NBER, Cambridge, MA.

Lusardi, A., Mitchell, O.S., and Curto, V. (2010). Financial Literacy among the Young. *The Journal of consumer affairs*, 44 (2), p.358-380.

Natoli, R., (2018), Factors contributing to financial literacy levels among a migrant group: An analysis of the Vietnamese cohort. *International Journal of Social Economics*, 45 (5), p. 730-745.

Novita, T. dan Maharani (2016). *Pengaruh Personal Financial Literacy, Financial Attitude terhadap Financial Management Behavior Mahasiswa S1 Fakultas Ekonomi Universitas Andalas*. Diploma Thesis, Univeritas Andalas.

Pearce, D., (2010). Financial Inclusion in the Middle East and North Africa: Analysis and Roadmap recommendations. *The World Bank*.

Rai, K., Dua, S., and Yadav, M., (2019), Association of financial attitude, financial behavior and financial knowledge towards financial literacy: A structural equation modeling approach, *FIIB Business Review*, 8 (1), p. 51-60.

Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs*, 44(2), 276-295.

Sucuahi, W.T. (2013). Determinants of financial literacy of micro entrepreneurs in Davao city. *International Journal of Accounting Research*. 1 (1), p. 44-51.

Shusha, A., (2017), Does financial literacy moderate the relationship among demographic characteristics and financial risk tolerance? Evidence from Egypt. *Australasian Accounting, Business and Finance Journal*, 11 (3), p. 67-86.

Shusha, A. (2016). The Mediating Role of Rational Buying in the Relationship between Financial Literacy and Financial Well-being. *Research Journal of Finance and Accounting*, 7 (3), p.133-142.

Union of Arab Banks. (2017). Financial Literacy in the Arab Region: A prerequisite for financial inclusion, Union of Arab Banks.

World Bank (2019), The World Bank in Yemen. *The World Bank*, Retrieved from <https://www.worldbank.org/en/country/yemen/overview>.

Wagner, J., (2019), Financial education and financial literacy by Income and education groups. *Journal of Financial counseling and Planning*, 30 (1).

Worthington, A. (2004). *The distribution of financial literacy in Australia*. Working Paper No. 185. Queensland University of Technology.

Zuhair, S., Wickremasinghe, G., and Natoli, R., (2015), Migrants and self-reported financial literacy. *International Journal of Social Economics*, 42 (4), p. 368-386.